Appendix B

Operation and Maintenance Plan for INTEC Operable Unit 3-13, Group 1, Tank Farm Interim Action

DOE/ID-10771

Appendix B

Operation and Maintenance Plan for INTEC Operable Unit 3-13, Group 1, Tank Farm Interim Action DOE/ID-10771

The document that was the subject of this appendix was provided as a stand alone document.

Appendix C

Summary of Verification and Inspection Reports Generated for TFIA

Appendix C

Summary of Verification and Inspection Reports Generated for TFIA

Table C-1. Summary of verification and inspection reports generated for TFIA.

Reference	Observation/Description/Results	Completion Date
Spec. 16000	General electrical installation. Witness component testing of all equipment, controls, and devices installed or modified by the subcontract. Approved.	10/9/01
Spec. 16109	Perform random visual surveillance to verity Welding Receptacles are installed as required by the specification and drawings. Completed.	11/27/01
Spec. 16110	Perform random visual inspection to verity electrical raceways are installed in accordance with the drawings and specification. Completed.	11/27/01
Spec. 16120	Perform random visual inspections to verity cable, wire, connectors, and miscellaneous devices are installed in accordance with the drawing and specifications. Completed.	11/8/01
Spec. 16120	Witness megger and continuity testing of wires and cables as required by the specifications. Completed.	10/3/01
Spec. 16195	Perform random visual inspections to verity electrical identification is performed as required by the drawings and specifications. Completed.	11/27/01
Spec. 16370	Perform random visual inspection to verify manual transfer switches are installed in accordance with the specification and drawings. Completed.	11/27/01
Spec. 16450	Perform random visual inspections to verify grounding is installed in accordance with the specification and drawings. Completed.	7/2/01
20978-C-1	Performed check of subcontractor survey equipment and current calibration with calibration sheet in their possession. Survey points are being set per the drawings.	11/28/00
20978-C-1	Verified that subcontractor surveyors are setting grades and control point that are called out on the drawings.	5/3/01
20978-C-1	Old fence was removed and the new fence was installed per the specifications and drawings.	6/14/01
20978-C-1	The demolition for the project was done per the specifications and drawings.	6/18/01
20978-C-1	During the backfilling the subcontractor placed the proper locator ribbon 12-24 inches below the finish grade.	5/31/01

Table C-1. (continued).

Reference	Observation/Description/Results	Completion Date
20978-C-1	Observed subcontractor backfilling. The lifts were 8 inches or less. Compaction was done in an appropriate manner. The equipment the subcontractor is using is obtaining the required compaction.	9/24/01
20978-C-1	Observed subcontractor backfilling. The lifts were 8 inches or less. Compaction was done in an appropriate manner.	4/29/01
20978-C-1	The area around the evaporation pond was prepped and fertilized with fert-a-loam, manufactured by J. R. Simplot, application rate was 40 gal per acre. The seed was spread at the rate of 15 lb per acre. After the seed was applied, the seeded areas were then harrowed. Seed was imbedded 14 to 1 in. after harrowing.	10/17/01
515162/C-3	Corrugated metal pipe culvert/arch inspected and accepted for specified drawing/zone area.	6/18/01
515166/C-7	Corrugated metal pipe culvert/arch inspected and accepted for specified drawing/zone area.	6/12/01
515166/C-7	Corrugated metal pipe culvert/arch inspected and accepted for specified drawing/zone area.	5/31/01
515164/C-5	Corrugated metal pipe culvert/arch inspected and accepted for specified drawing/zone area.	5/30/01
515164/C-5	Corrugated metal pipe culvert/arch inspected and accepted for specified drawing/zone area.	5/23/01
515163/C-4	Corrugated metal pipe culvert/arch inspected and accepted for specified drawing/zone area.	5/7/01
515164/C-5	Corrugated metal pipe culvert/arch inspected and accepted for specified drawing/zone area.	5/2/01
515168/C-9 515169/C-10	Corrugated metal pipe culvert/arch inspected and accepted for specified drawing/zone area.	5/1/01
515167/C-8	Corrugated metal pipe culvert/arch inspected and accepted for specified drawing/zone area.	4/30/01
515164/C-5	Corrugated metal pipe culvert/arch inspected and accepted for specified drawing/zone area.	4/26/01
515165/C-6	Corrugated metal pipe culvert/arch inspected and accepted for specified drawing/zone area.	4/19/01
01051 and drawings	Perform random visual surveillance to verify surveying and staking is performed in accordance with the specifications and drawings.	5/3/01
01051 and drawings	Verify the reference survey reference points they are at the position and elevations within tolerance limits shown in the drawings or specifications.	5/3/01

Table C-1. (continued).

Reference	Observation/Description/Results	Completion Date
01051 and drawings	Verify subcontractor survey equipment is controlled and calibrated in accordance with PDR-5012.	11/28/00
02062 and drawings	Perform random visual surveillance to verify demolition and repairs are performed in accordance with the drawings and specifications.	6/18/01
02062 and drawings	Verify existing catch basin and grates are removed as shown in drawings.	6/18/01
02062 and drawings	Verify precast dry wells, concrete lid, grates, and geotextile fabric are removed as shown in the drawings.	6/18/01
02062 and drawings	Verify the existing dry well is capped with a minimum of 1-ft 6-in. of clean gravel and a minimum of 12-in. of concrete as shown in the drawings.	8/2/01
02200 and drawings	Perform random visual surveillance to verify clearing and grubbing for the evaporation pond and berms is performed in accordance with the drawings and specifications.	11/28/00
02200 and drawings	Perform random visual surveillance to verify clearing and grubbing of areas to be paved or graded or excavated (inside the INTEC fence) is performed in accordance with the drawings and specifications.	9/26/01
02200 and drawings	Perform random visual surveillance to verify earth excavation for the evaporation pond is performed in accordance with the drawings and specifications.	12/14/00
02200 and drawings	Perform random visual surveillance to verify earth excavation for footings, headwalls, end walls, slabs, and drainage ditches is performed in accordance with the drawings and specifications.	12/6/01
02200 and drawings	Verify sufficient moisture-density relations of soils, pit run gravel, and crushed gravel aggregate are prepared for verifying compaction results.	12/6/01
02200 and drawings	Perform random visual surveillance to verify locator ribbon is placed in accordance with the drawings and specifications.	5/31/01
02200 and drawings	Perform random visual surveillance to verify fill or backfill is placed in accordance with the drawings and specifications.	12/6/01
02200 and drawings	Verify fill or backfill under slabs, roads, sidewalks, and other surfaced areas, around foundation walls, culverts, underground tanks, and similar structures has been compacted to 95% maximum density. Randomly select and test one location for each 10,000 (approx.) square feet of compacted material.	12/6/01
02430 and drawings	Perform random visual surveillance to verify culverts are installed in accordance with the drawings and specifications.	12/6/01
02430 and drawings	Verify the trench drains are ACO Drain FG200 by ACO Polymer Products or approved equal, nominal 8-in. width, 1% slope.	5/7/01

Table C-1. (continued).

Reference	Observation/Description/Results	Completion Date
02430 and drawings	Verify trench drains are installed in accordance with the specifications, drawings, and manufacturer's recommendations.	5/7/01
02444 and drawings	Perform random visual surveillance to verify chain link fencing is installed in accordance with drawings and specifications.	6/14/01
02486 and drawings	Verify seedbed is prepared in accordance with the specifications.	10/16/01
02486 and drawings	Verify fertilizer is 19-48-0 (+/-2% for each component). Verify fertilizer is applied at approx. 50 lbs per acre.	12/10/01
02486 and drawings	Verity seed mix is in accordance with the specification. Verify seed is applied at approx. 18 pounds per acre. Verify seed is buried .25-.75 in. Verify weather conditions are favorable.	12/10/01
02514 and drawings	Verify existing asphalt pavement is cut back 6-10 in. and that fractured, heaved, undermined or otherwise damaged asphalt is "squared out."	12/10/01
02514 and drawings	Verify tack coat is applied at the edges of existing asphalt in accordance with the specifications.	12/10/01
02514 and drawings	Verify asphalt concrete has been compacted to 95% standard density. Randomly select and test on location for each 10,000 (approx) ft^2 of compacted material.	12/10/01
03301 and drawings	Perform pre-placement inspections for each placement of concrete. Verify form work and reinforcement are placed in accordance with the drawings and specifications.	12/10/01
03301 and drawings	Perform tests for air content, slump, and temperature and obtain four cylinders for compressive strength testing for class 45 concrete. Sample and test at least one batch each day, or at least once for each 150 yd^3 or concrete placed if more than 150 yd^3 are placed each day.	12/10/01
03301 and drawings	Perform post -placement inspections for each placement of concrete. Verify curing compound and hot/cold weather protection is provide as required.	12/10/01
03400 and drawings	Perform random visual surveillance to verify precast concrete is installed in accordance with the specifications and drawings.	8/27/01
15401 and drawings	Verify ductile iron pipe is Class 200, 8-in. pipe, ANSI C151 or AWWA A21.51, UL listed, cement lined per ANSI C104 or AWWA A121.4 and have manufactures asphalt coated outside. Verify fittings, eyes reducers, elbows conform to ANSI C110 or AWWA A21.10 and ANSI C111 or AWWA A21,11.	8/2/01
15401 and drawings	Verify underground plastic pressure and gravity piping is Class 100 (DR 25) polyvinyl chloride per ASTM D1784 and ASTM D3139 and meeting AWWA C900.	8/2/01

Table C-1. (continued).

Reference	Observation/Description/Results	Completion Date
15401 and drawings	Perform random visual surveillance to verify underground piping is bedded in 4 inches of sand minimum, is installed to uniform pitches between points for which elevations are established, is straight and free from irregularities between bends and elbows, is anchored against slippage by concrete or masonry piers, tie rods and pipe clamps, or other approved means.	8/2/01
15401 and drawings	Perform random visual surveillance to verify pipelines and equipment are labeled or tagged as shown in the specifications and drawings.	8/2/01
15401 and drawings	Witness hydrostatic testing of force main piping. Document results on subcontractor test report. NOTE: Hydrostatic testing is not required for plastic and metal gravity piping.	5/28/01
15480 and drawings	Verify lift pumps, pump motors, access frame and cover, level sensor, controls, HDL ball check valve and drain valves comply with the specifications and drawings.	10/9/01
15480 and drawings	Verify pipelines, pumps and valves are tagged or labeled in accordance with the specification and drawings.	10/9/01
15480 and drawings	Witness Construction Component start-up testing of the storm water lift station pumps and controls. Document on the subcontractors test report.	10/9/01
15481 and drawings	Verify sump pump, totalizer, polyethylene pipe, and controls comply with the drawings and specifications.	12/6/01
15481 and drawings	Verify pipelines, pumps and equipment are tagged or labeled in accordance with the specifications and drawings.	12/6/01
15481 and drawings	Witness start-up testing of sump pumps. Verify operability and function. Document on subcontractors construction component test report.	12/6/01
PRD-5012 DWG 624401	Verify that topographic shots are taken at edge of pavement, corners, grade breaks and swales, and also on top of the pipe at all grade breaks and/or every 25 ft to verify the pipe slope.	8/1/04
02200	Verify backfill and fill material is satisfactory, only excavated soil material FREE OF clay, gravel larger that 3-in., debris, wastes, frozen material, organic matters, and other deleterious matters is to be used as fill required.	8/1/04
02200	Verify that load restrictions are applied per procedures and design and load markers are put back after completion.	8/1/04
02200	Verify that the existing sub base is graded smooth prior to placement of gravel fill material; Additional “fines” brought to optimize moisture content added. And compacted to at least 90% maximum density.	(Deleted, see item below dated 7/19/04)

Table C-1. (continued).

Reference	Observation/Description/Results	Completion Date
02430	Verify that the culverts are 16-gage minimum galvanized or aluminized corrugated steel pipe, that the HDPE pipe and fittings are non-pressurized, corrugated HDPE drainpipe, 6-in. diameter, and single wall plain style pipe, That the couplers are Fernco brand used for connection between the CMP culvert and HDPE drainpipe. Verify that the connection is plumbed and the flow is achieved, That at each HDPE drainpipe discharge location, verify that a Dandy sock by Mirafi is installed per manufacturer's guidelines.	8/1/04
PRD-5012	Verify that the installation of CMP culverts and HDPE drainpipe lines, Grades and slope are per design. Minimum slope of 5% must be maintained.	8/1/04
02430	Verify the placement of ballast loads (36EA, GFE) on HDPE pipe centered perpendicular to the direction of the pipe and placed every 30 lineal feet, and within 10 feet of discharge points.	8/1/04
02576	Verify that the seal coat is GSB-78 by asphalt systems, Inc. (it is a blended liquefied gilsonite-paving blend pavement sealer and rejuvenator supplied in ready to use format).	8/1/04
02576	Verify that the surface is thoroughly clean and dry prior to the application of asphalt seal coat.	8/1/04
02741	Verify that the tack coat is emulsified asphalt; CSS-1 and the joints are smooth, straight and show no segregation of material.	8/1/04
23614-X-01/1	Excavation and preparation has been going for a few days to get area ready for asphalt pavement, talked to the surveyor to make sure all elevations are in place prior to the start of paving. Joint efforts ere going between the subcontractor, force account, and RadCon in segregating and removing the contaminated dirt as they go.	7/16/04
23614-X-01/1	Talked to design engineer about the compaction conditions, the dirt and the lad zone, we both agree that the requirements in the specifications cannot be met due to the nature of the area, I also told him about using hand compactors such as vibratory plates compactors to achieve the best possible compaction results. A field design change will follow to indicate that all compaction will be done manually and no testing is needed.	7/19/04
23614-X-01/1	Adding fines (dirt) and compacting the backfill manually, water was added to control the 20-mile/hr dust conditions.	7/20/04
23614-X-01/1	Observed the application of tack coat prior to start paving on the east side, subcontractor got the first truck load, about 15 tons, no mix temperature was on the delivery ticket, notified subcontractor for next loads.	7/22/04

Table C-1. (continued).

Reference	Observation/Description/Results	Completion Date
	Paving continued. A total of 5 truck loads of asphalt at approximately 1.5 hr intervals were delivered. I was told on the first truck load that the plant's computer is failing to register the mix temperature at loading time, we started taking temperature reading of the mix at placement time using propped thermometer, reading varies from 265° to 280°F.	7/23/04
23614-X-01/1	Subcontractor received two truckloads of asphalt, manually checked the temperature, 271° and 277° F, first truck load was spread out and compacted, after the second truck load was spread out the take cover alarm went off and the asphalt was left un-compacted for four hours.	7/26/04
23614-X-01/1	Two additional truckloads of asphalt were delivered to finish the paving; repairs were performed on the last portion of un-compacted asphalt from the day before.	7/27/04
23614-X-01/1	A field design change regarding the manual compaction on dirt and asphalt was generated and sent to the design engineer, it was approved. Inspection plan 23614-X-01 was revised to reflect the changes.	7/28/04

Appendix D

Photographs
(Reference P-1227, Tank Farm Interim Action Photographs, October 11, 2000, to October 2004)

Appendix D

Photographs of the TFIA Construction

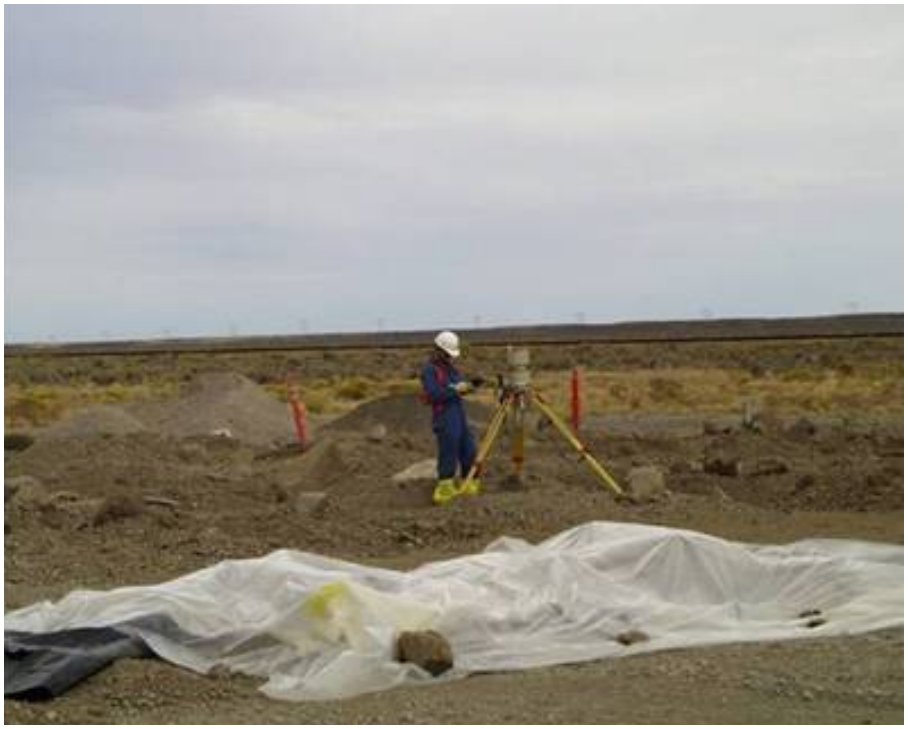

Figure D-1. Gamma scanning at evaporation pond location.

Figure D-2. Start of evaporation pond excavation.

Figure D-3. Evaporation pond excavation.

Figure D-4. Culvert removal east of the tank farm.

Figure D-5. Concrete headwall and endwall east of the tank farm.

Figure D-6. Force main installation.

Figure D-7. Pre-cast manholes.

Figure D-8. Lift station installation.

Figure D-9. Lift station installation close-up.

Figure D-10. Lift station pump installation.

Figure D-11. Interior of lift station.

Figure D-12. Grading for paving north of the tank farm.

Figure D-13. Grading for paving and headwall north of the tank farm.

Figure D-14. Paving north of the tank farm.

Figure D-15. Paving south of tank farm.

Figure D-16. Paving compaction north of tank farm.

Figure D-17. Concrete ditches northwest of tank farm.

Figure D-18. Concrete ditch and paving south of tank farm.

Figure D-19. Lift station system operation test - water flowing out of force main.

Figure D-20. Leak detection control panel at the evaporation pond.

Figure D-21. Laying asphalt inside the tank farm at Site CPP-31.

Figure D-22. Laying asphalt at Site CPP-31.

Figure D-23. Preparing Sites CPP-28 and CPP-79 for asphalt.

Figure D-24. New asphalt on Sites CPP-28 and CPP-79 inside the tank farm.

Figure D-25. Drainage piping and ballast tubes inside the tank farm.

Figure D-26. Asphalt applied around probeholes in soil contamination areas CPP-28 and CPP-79.

Figure D-27. PVC drainpipe from the top of CPP-79 that has been directed toward the west, in the direction of surface run-off (in accordance with the resolution to Agency Observation #3 from the final inspection on September 22, 2004).